Reply to Office action of Mar. 15, 2007

**AMENDMENTS TO THE CLAIMS:** 

This listing of claims will replace all prior versions and listings of claims in the

application:

**Listing of Claims**:

Claims 1-3. (Canceled)

4. (Currently amended) In an apparatus for thixocasting a cast iron, comprising at least a

pair of dies that can be freely opened and closed to form a die cavity which is to be filled with

semi-molten cast iron under a pressure, injection means operable to inject the semi-molten

injected material into the die cavity through an injection path, and a gate located at the entry

of the die cavity so as to throttle entry from the injection means into the die cavity, the

improvement wherein the gate is constituted from a separate gate member and is disposed at

the entry of the cavity each time an injection casting operation is carried out and is taken out

together with the casting after the injection casting operation is completed, wherein the gate

member has a projecting portion formed all around the gate hole facing the injection

path.

5. (Canceled)

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6. (Currently amended) In a method of thixocasting a cast iron, which comprises filling a

cavity in dies with semi-molten cast iron material that is injected through a gate that throttles

the entry of the cavity under a pressure, the improvement wherein comprising the step of

covering the injected material is covered on the a circumference thereof of the semi-

molten cast iron material prior to being injected through the gate by a steel sheet 0.2 to

0.5 mm thick and having a melting point higher than that of the injected material semi-

molten cast iron material.

7. (Currently amended) The method of thixocasting a cast iron according to claim 6,

further comprising the step of injecting wherein the semi-molten cast iron material is

injected through a gate hole having a projecting portion formed to a certain extent all

around the gate hole and facing the injection path.

8. (Previously presented) The method of thixocasting a cast iron according to claim 6,

wherein the steel sheet is a stainless steel sheet.

9. (Previously presented) The method of thixocasting a cast iron according to claim 7,

wherein the steel sheet is a stainless steel sheet.

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